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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,757	10/12/1999	LILA MADOUR	040010-440	6600

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ERICSSON INC.
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EXAMINER	
GEORGE, KEITH M	

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/416,757	MADOUR ET AL.	
	Examiner	Art Unit	
	Keith M. George	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 8-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 8-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 8, 9, 11 and 13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Agraharam et al., U.S. Patent 6,407,988, hereinafter Agraharam.

3. Referring to claim 1, Agraharam teaches mobility support services using mobility aware access networks (title). A "Mobility Aware IP Network" is a wide area network that operates according to Internet Protocol. It differs from a traditional wide area network because it includes "home agents" and "foreign agents" that provide mobility services to mobile hosts (column 3, lines 12-16). Hosts may be one of two types: "mobile hosts" and "stationary hosts." As the name implies, mobile hosts may move among the premises networks while stationary hosts may not. In figure 1, the shown laptop computes are mobile hosts; desktop computers and servers are stationary hosts (column 3, lines 62-67). Mobile hosts register each time they connect to a new premises network (request a second connection with a second data communications network). As part of the registration process, a mobile host determines whether it is in its home network (first data communication network) or a foreign network (second data communication network) (column 4, lines 40-43). Given this background information, figures 2 and 4 will now be used to

show the teachings of Agraharam. Figure 4 shows an example of data flow between the mobile host and the stationary host. Both the mobile host and stationary host are located in the mobile host's virtual home network. Initially, privacy is maintained because the stationary host cannot determine where the mobile host actually resides. The stationary host addresses data to the mobile host at its home address. It transmits the data to the home network. The virtual home network routes the data to the home agent (first gateway associated with the first data communication network). The home agent determines the location of the mobile host and routes the message to the mobile host (column 6, lines 37-50). Figure 2 illustrates an exemplary flow of data between a mobile host and another host, called a "correspondent host." The correspondent host addressed data to the mobile host using its home address. Based upon the home address, the data is routed to the mobile host's home agent (first gateway associated with the first data communication network). The home agent "tunnels" the data to the foreign agent (second gateway) using the mobile host's care-of-address (establishing a tunnel between a first gateway and second gateway). The foreign agent retransmits the data to the mobile host using the mobile host's temporary foreign address (routing packets by the first gateway over a tunnel to a second gateway and over a second connection based on the acquired gateway address to the mobile device) (column 5, lines 27-44).

4. Referring to claim 2, Agraharam teaches the method described in reference to claim 1 above and also clearly teaches that when a mobile host determines that it is located in a foreign network, it registers with a foreign agent. The mobile host identifies the foreign agent, registers with it and obtains a "care-of" address on the foreign network. Thereafter, either the mobile host or the foreign agent communicate with the home agent and the mobility server providing the

mobile host's new care-of-address (an entity in the second data communications network initiates the request for the establishment of a tunnel) (column 4, lines 51-59).

5. Referring to claim 3, Agraharam teaches the method described in reference to claim 1 above where it was clearly shown that the home agent "tunnels" the data to the foreign agent using the mobile host's care-of-address.

6. Referring to claim 4, Agraharam teaches the method described in reference to claim 1 above and has also clearly taught that the mobile hosts register each time they connect to a new premises network (mobile device initiates the request for the second connection) (column 4, lines 40-41).

7. Referring to claim 8, Agraharam teaches the method described in reference to claim 2 above and also clearly teaches that the care-of-address is provided to the home agent.

8. Referring to claims 9 and 11, Agraharam teaches the method described in reference to claims 2 and 3 above where it is clearly shown that the home agent is a database storing identities of mobile hosts within its network (centralized database). The identity (network address) would be provided by the first gateway to the second gateway in the source address portion of the header, which is essential to packet communications.

9. Referring to claim 12, Agraharam teaches the method described in reference to claim 3 above and also clearly teaches that dynamic movement of a mobile host among foreign networks does not cause a loss of data (column 9, lines 61-62). The steps involved in a host moving among foreign networks are clearly described in reference to figure 8, these steps inherently consume a finite period of time, in order for the data to not be lost during this time, there inherently exists a type of buffers storage to hold the data during the host movement.

10. Referring to claims 13 and 14, Agraharam teaches the method described in reference to claim 4 above and has also been clearly shown to teach that the mobile host provides the home agent with the care-of address identifying the foreign agent and after registering, either the mobile host or the foreign agent communicate with the home agent (column 4, lines 51-59). In order for the foreign agent to be able to communicate with the home agent, it must know the identity of the foreign agent, which could only be obtained from the mobile host.

11. Referring to claim 15, Agraharam teaches the method described in reference to claim 2 above teaches the method described in reference to claim 1 above, which clearly refers to a mobile IP protocol (column 1, lines 21-24).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agraharam in view of Turunen, U.S. Patent 6,487,595, hereinafter Turunen. Agraharam teaches the method described in reference to claim 1 above with the possible exception of the first gateway being a Gateway General Packet Radio Services Serving Node (GGSN). Turunen teaches resource reservation in mobile Internet protocol including that the Mobile IP is implemented in either the GGSN or the SGSN to route received data through the corresponding domain (i.e. GPRS or HSCSD) in the GSM network (column 6, lines 37-40). At the time the invention was made it

would have been obvious to a person of ordinary skill in the art to include the GGSN or SGSN as taught by Turunen in the method of Agraharam since both clearly teach methods related to Mobile IP. One of ordinary skill in the art would have been motivated to do this in order to route received Mobile IP data in the GSM network (Turunen, column 6, lines 37-40).

Response to Arguments

14. Applicant's arguments filed 29 July 2004 have been fully considered but they are not persuasive.

15. On page 6 of the Reply Under 37 CFR 1.111, applicant argues that the HA and FA of Agraharam are quite different than the first gateway associated with the first network and the second gateway associated with the second network. In response, it is unclear what differences applicant is attempting to point out. The gateways referred to in the claims are assigned to networks and handle connections. The HA and FA of Agraharam are used to communicate with the mobile (handle connections) depending on whether the mobile is in a home network or a foreign network (HA and FA are assigned to different networks) (column 4, lines 40-59).

16. Applicant also argues that Agraharam fails to disclose the step of establishing a first connection in the first data communication network, requesting a second connection with a second data communication network while the mobile station is moving towards the second data communication network, acquiring an address of a second gateway in the second network and then establishing a tunnel between the two gateways. In response, Agraharam does teach that when a mobile is in it home network, it communicates with its home agent (establishing a first connection in the first data communication network) and when it is in a foreign network it

registers with a foreign agent (requesting a second connection with a second data communication network) (column 4, lines 40-59). Agraharam goes on to teach that as the mobile host moves among foreign networks, the old fold foreign network becomes a "previously visited network" and the new foreign network becomes the "currently visited network", therefore the mobile registers with the foreign network as it is moving towards the foreign network (column 4, line 60 - column 5, line 1).

17. Applicant also argues on page 7 that Agraharam teaches initiating a new communication towards a second device and that Agraharam fails to teach a mobile changing data communication networks from a first network to a second network while keeping an existing session active and still receiving data packets received by the previous gateway. In response, it is unclear how the "new communication" argued by the applicant is different from "requesting a second connection with a second data communications network" as stated in the claim. The second connection is not the same as the first connection, so by all accounts this could be considered a "new communication". Also, it has been made clear that Agraharam teaches that based upon the home address (existing active session still receiving data packets), WANs and MAINs route the data to the mobile host's home agent. The home agent "tunnels" the data to the foreign agent using the mobile host's care-of address (column 5, lines 27-44).

18. No argument has been made for any dependent claims and therefore the rejections to dependent claims 2-4 and 8-15 are maintained.

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 571-272-3099. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith M. George
9 September 2004

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9/13/04